

**California Fire Code
(Part 9, Title 24, California Code of Regulations)**

November 15, 2004 Errata

It is suggested that the section number as well as the page number be checked when inserting this material and removing the superseded material. In case of doubt, rely on the section numbers rather than the page numbers since the section numbers must run consecutively.

It is further suggested that the superseded material be retained with this revision record sheet so that the prior wording of any section can be easily ascertained.

Please keep the removed pages with this revision for future reference.

NOTE

Due to the fact that the application date for a building permit establishes the California Building Standards code provisions which are effective at the local level and applies to the plans, specifications and construction for that permit, it is strongly recommended that the removed pages be retained for historical reference.

Remove Old White Page

1-215 – 1-216

Insert New Buff Colored Pages

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1-216.1 – 1-216.2

3. Set not less than 3 feet (914 mm) deep in a concrete footing or not less than a 15-inch (381 mm) diameter,
4. Set with the top of the posts not less than 3 feet (914 mm) above ground, and
5. Located not less than 5 feet (1524 mm) from the tank.

8001.11.4 Electrical wiring and equipment. Electrical wiring and equipment shall be installed in accordance with the Electrical Code.

8001.11.5 Static accumulation. When processes or conditions exist where a flammable mixture could be ignited by static electricity, means shall be provided to prevent the accumulation of a static charge.

8001.11.6 Protection from light. Materials which are sensitive to light shall be stored in containers designed to protect them from such exposure.

8001.11.7 Shock padding. Materials which are shock sensitive shall be padded, suspended or otherwise protected against accidental dislodgement and dislodgement during seismic activity. For seismic requirements and the seismic zone in which the material is located, see the Building Code.

8001.11.8 Separation of incompatible materials. Incompatible materials in storage and storage of materials incompatible with materials in use shall be separated when the stored materials are in containers having a capacity of more than 5 pounds (2.268 kg) or $\frac{1}{2}$ gallon (1.89 L). Separation shall be accomplished by:

1. Segregating incompatible materials storage by a distance of not less than 20 feet (6096 mm),
2. Isolating incompatible materials storage by a noncombustible partition extending not less than 18 inches (457.2 mm) above and to the sides of the stored material,
3. Storing liquid and solid materials in hazardous materials storage cabinets (see Section 8001.3.2), or
4. Storing compressed gases in gas cabinets or exhausted enclosures in accordance with Sections 8003.3.1.3.2 and 8003.3.1.3.3.

Materials which are incompatible shall not be stored within the same cabinet or exhausted enclosure.

8001.11.9 Shelf storage. Shelving shall be of substantial construction, adequately braced and anchored. For seismic requirements and the seismic zone in which the material is located, see the Building Code.

Shelves shall be provided with a lip or guard when used for the storage of individual containers.

EXCEPTIONS: 1. Storage in hazardous materials storage cabinets or laboratory furniture specifically designed for such use.

2. Storage of hazardous materials in amounts not requiring a permit in accordance with Section 8001.3.

Shelf storage of hazardous materials shall be maintained in an orderly manner.

8001.12 Handling and Transportation.

8001.12.1 General. Handling and transportation of hazardous materials in corridors or exit enclosures shall be in accordance with Section 8001.12. See also Section 8001.4.

Hazardous materials gas containers, cylinders and tanks in transit shall have their protective caps in place. Containers, cylinders and tanks of highly toxic or toxic compressed gases shall have their valve outlets capped or plugged with an approved closure device. See also Sections 7401.7 and 7403.3.

8001.12.2 Required use of carts and trucks. Liquids in containers exceeding 5 gallons (18.9 L) in a corridor or exit enclosure shall be transported on a cart or truck. Containers of hazardous materials having a hazard ranking of 3 or 4 in accordance with UFC Standard 79-3 transported within corridors or exit enclosures shall be on a cart or truck. When carts and trucks are required for transporting hazardous materials, they shall be in accordance with Section 8001.12.3.

EXCEPTIONS: 1. Two hazardous materials liquid containers, which are hand carried in acceptable safety carriers.

2. Single drums not exceeding 55 gallons (208.2 L), which are transported by suitable drum trucks.

3. Containers and cylinders of compressed gases, which are transported by approved hand trucks, and containers and cylinders not exceeding 25 pounds (11.3 kg), which are hand carried.

4. Solid hazardous materials not exceeding 100 pounds (45.4 kg), which are transported by approved hand trucks, and a single container not exceeding 50 pounds (22.7 kg), which is hand carried.

8001.12.3 Carts and trucks.

8001.12.3.1 General. Carts and trucks required by Section 8001.12.3 to be used to transport hazardous materials shall be in accordance with Section 8001.12.3.

8001.12.3.2 Design. Carts and trucks used to transport hazardous materials shall be designed to provide a stable base for the commodities to be transported and shall have a means of restraining containers to prevent accidental dislodgement. Compressed gas cylinders placed on carts and trucks shall be individually restrained.

8001.12.3.3 Speed-control devices. Carts and trucks shall be provided with a device which will enable the operator to safely control movement by providing stops or speed-reduction devices.

8001.12.3.4 Construction. Construction materials for hazardous materials carts or trucks shall be compatible with the material transported. The cart or truck shall be of substantial construction.

8001.12.3.5 Spill control. Carts and trucks transporting liquids shall be capable of containing a spill from the largest single container transported.

8001.12.3.6 Attendance. Carts and trucks used to transport materials shall not obstruct or be left unattended within any part of a means of egress.

8001.12.3.7 Incompatible materials. Incompatible materials shall not be transported on the same cart or truck.

8001.13 Facility Closure.

8001.13.1 Temporarily out-of-service facilities. Facilities which are temporarily out of service shall continue to maintain a permit and be monitored and inspected.

8001.13.2 Permanently out-of-service facilities. Facilities for which a permit is not kept current or is not monitored and inspected on a regular basis shall be deemed to be permanently out of service and shall be closed in accordance with Section 8001.13.3.

8001.13.3 Plan. The permit holder or applicant shall submit a plan to the fire department to terminate storage, dispensing, handling or use of hazardous materials at least 30 days prior to facility closure. The plan shall demonstrate that hazardous materials which were stored, dispensed, handled or used in the facility have been transported, disposed of or reused in a manner that eliminates the need for further maintenance and any threat to public health and safety. Such plan shall be submitted in accordance with Section 8001.3.1.

8001.14 Group M Occupancy Storage and Display and Group S Occupancy Storage.

8001.14.1 General. The aggregate quantity of nonflammable solid and nonflammable or noncombustible liquid hazardous materials stored and displayed within a single control area of a Group M Occupancy or stored in a single control area of a Group S Occupancy is allowed to exceed the exempt amounts specified in Section 8001.15 when in accordance with Section 8001.14.

8001.14.2 Exempt amounts per Group M or Group S Occupancy control area. The aggregate quantity of nonflammable solid and nonflammable or noncombustible liquid hazardous materials stored and displayed within a single control area of a Group M Occupancy or stored in a single control area of a Group S Occupancy shall not exceed the exempt amounts set forth in Table 8001.14-A.

8001.14.3 Storage and display.

8001.14.3.1 General. Storage and display shall be in accordance with Section 8001.14.3.

8001.14.3.2 Density. Storage and display of solids shall not exceed 200 pounds per square foot (976.4 kg/m^2) of floor area actually occupied by solid merchandise. Storage and display of liquids shall not exceed 20 gallons per square foot (76 L/m^2) of floor area actually occupied by liquid merchandise.

8001.14.3.3 Height. Storage and display height shall not exceed 6 feet (1829 mm) above the finished floor.

8001.14.3.4 Container location. Individual containers less than 5 gallons (19 L) or less than 25 pounds (11 kg) shall be stored or displayed on pallets, racks or shelves.

8001.14.3.5 Racks and shelves. Racks and shelves used for storage or display shall be in accordance with Section 8001.11.9.

8001.14.3.6 Container type. Containers shall be approved for the intended use.

8001.14.3.7 Container size. Individual containers shall not exceed 100 pounds (45.4 kg) or a 5-gallon (19 L) capacity.

8001.14.3.8 Incompatible materials. Incompatible materials shall be separated in accordance with Section 8001.11.8.

8001.14.3.9 Floors. Floors shall be in accordance with Section 8001.13.

8001.14.3.10 Aisles. Aisles 4 feet (1219 mm) in width shall be maintained on three sides of the storage or display area.

8001.14.3.11 Signs. Hazard identification signs shall be provided in accordance with Section 8001.7.

TABLE 8001.14—A Multiplier For Exempt Amounts In Retail Or Wholesale Sales Occupancies

CONDITION		Retail and Wholesale Display and Storage Exempt Amount per Control Area	
MATERIAL	CLASS	Solids (pounds)	Liquids Gallons (pounds)
		X.0.4536 for kg	X 3.785 for L X 0.4536 for kg
1. Health Hazard Materials - Non-Flammable and Non-Combustible Solids, Liquids, and Gases			
Carcinogens		N.L.	N.L.
Corrosives ^{2,3}		10,000	1,000
Highly Toxics		20 ^{2,3}	2 ^{2,3}
Irritants		N.L.	N.L.
Other Health Hazards		N.L.	N.L.
Sensitizers		N.L.	N.L.
Toxics ^{2,3}		1,000	100
2. Physical Hazard Materials - Non-Flammable and Non-Combustible Solids and Liquids			
Oxidizers ^{2,3}	4	N.A.	N.A.
	3	1,150	115
	2	2,250	225
	1	18,000	1,800
Unstable (Reactives) ^{2,3}	4	N.A.	N.A.
	3	550	55
	2	1,150	115
	1	N.L.	N.L.
Water (Reactives)	3 ^{2,3}	550	55
	2 ^{2,3}	1,150	115
	1	N.L.	N.L.

N.A. = Not Allowed

N.L. = Not Limited

¹ Hazard categories are as specified in Section 8002.² Exempt amounts may be increased 100 percent in sprinklered buildings. When Footnote 3 applies, the increase for both footnotes can be applied.³ Exempt amount may be increased 100 percent in approved storage cabinets. See Section 8001.10.6 for approved cabinets. When Footnote 2 also applies, the increase for both footnotes can be applied.

8001.15 Exempt Amounts.

8001.15.1 General. Exempt amounts shall be as specified in Section 8001.15.2 and Tables 8001.15-A through 8001.15-D. Storage, dispensing, use and handling of hazardous materials in quantities exceeding exempt amounts shall be in accordance with Sections 8001, 8003 and 8004.

Storage, dispensing, use and handling of hazardous materials in quantities not exceeding exempt amounts shall be in accordance with Section 8001.

Where exempt amounts are indicated in pounds (kilograms) and when the density of the material is not provided to the chief, a conversion of 10 pounds per gallon (1.2 kg/L) shall be used.

For retail and wholesale display, see Section 8001.14.

8001.15.2 Special limitations for indoor storage and use by occupancy.

8001.15.2.1 General. Quantities of hazardous materials shall be limited within occupancies in accordance with Sections 8001.15.2 and 8001.15.3.

8001.15.2.2 Group A Occupancies.

8001.15.2.2.1 Toxic and highly toxic compressed gases. Toxic and highly toxic compressed gases shall not be stored or used within Group A Occupancies.

EXCEPTION: Cylinders not exceeding 20 cubic feet (0.57 m³) at NTP are allowed within gas cabinets or fume hoods.

8001.15.2.2.2 Liquid and solid oxidizers.

8001.15.2.2.2.1 Class 4. Class 4 liquid and solid oxidizers shall not be stored or used in Group A Occupancies.

EXCEPTION: Class 4 liquid and solid oxidizers are allowed when stored within hazardous materials storage cabinets. Hazardous materials storage cabinets must comply with Section 8001.3.2 and shall not contain other storages.

8001.15.2.2.3 Organic peroxides. Detonatable and Class I organic peroxides shall not be stored or used in Group A Occupancies.